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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/507,466 02/22/00 BROWN

D M3477.0000/P

EXAMINER

MM91/0924

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NGUYEN, T

ART UNIT

PAPER NUMBER

2872

DATE MAILED:

09/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Applicant N .

09/507,466

Applicant(s)

BROWN, DAVID R.

Examiner

Thong Q Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-10 and 12-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-18 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The present Office action is made in response to the Amendment (Paper No. 6) filed by applicant on 08/01/2001.

Specification

2. The substitute specification filed by applicant on 08/01/2001 has been received and entered.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-2, 4, and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugawara (U.S. Patent No. 4,946,252) in view of Hed (U.S. Patent No. 5,247,390).

Sugawara discloses an optical diffusing element for use in an optical device. The optical element comprises a glass substrate having an entrance surface and an emitting surface. The entrance surface comprises a series of composite lenses (22) wherein each composite lens (22) comprises two optical elements arranged adjacent to each other wherein the first optical element (24) has a concave shape and a second optical element (26) has a convex shape. Each of the composite lens has a generally wedged shape and has a dimension in the range of micrometers. See columns 5-7 and figs. 1A and 1B, for example. While Sugawara does not clearly state that the output surfaces of the optical elements

are planar; however, the use of an optical element having a series of convexo-concave elements formed on an entrance surface and a planar output surface is clearly suggested to one skilled in the art as can be seen in the optical device provided by Hed. In particular, Hed teaches the use of an optical diffusing element in an optical device having a light source wherein the optical element comprises at least one diffusing element having a diffusing pattern formed on an entrance surface and a planar surface. See columns 6-8 and figs. 7-8, for example. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the device having an optical diffusing element as provided by Sugawara by using an optical diffusing element having a planar output surface as suggested by Hed for the purpose of controlling the direction of diffused light.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugawara in view of Hed.

The combined product as described in the paragraph 4) above meets all of the limitations of the device as claimed in claim 3 except the feature that the optical elements are reflective. However, such a feature is merely that of a preferred embodiment and no criticality has been disclosed. The support for this conclusion is found in the present specification in which applicant has taught that the optical elements are transmissive. Such use of a transmissive material for the optical elements is indeed claimed as can be seen in the present claims 2 and 10. Thus, absent any showing of criticality, it would have been obvious to one skilled in the

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art at the time the invention was made to utilize a reflection coating in combination with the diffusing element for the purpose of providing a system having diffusing feature via reflection.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugawara in view of Hed as applied to claim 1 above and further in view of Hoch et al (U.S. Patent No. 6,002,520).

The optical device as provided by Sugawara and Hed as described above meets all of the device as claimed in present claim 6 except the feature of a lens for performing a Fourier transform operation. However, the use of a diffusing element in a system having a light source, a lens and a diffusing element is clearly disclosed in the art as can be seen in the optical system provided by Hoch et al. See columns 2-5 and figs. 1-4. Thus, it would have been obvious to one skilled in the art at the time the invention was made to utilize/apply the diffusing device provided by Sugawara and Hed in an optical system having a lens disposed in front of the diffusing device as suggested by Hoch et al so that the lens will perform a Fourier transform operation of the light before it enters the diffusing element.

Allowable Subject Matter

7. Claims 12-16 are allowed over the cited art.

Response to Arguments

8. Applicant's arguments with respect to the rejected claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

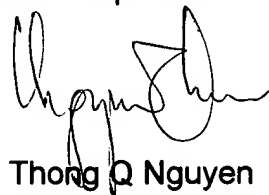
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q Nguyen whose telephone number is 703 308 4814. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on 703 308 1687. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308 7724 for regular communications and 703 308 7724 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.



Thong Q. Nguyen
Primary Examiner
Art Unit 2872

September 20, 2001